



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,204	01/23/2004	Larry Kuhl	4996-00001	8083
7590	10/04/2005			
William L. Falk ANDRUS, SCEALES, STARKE & SAWALL, LLP Suite 1100 100 East Wisconsin Avenue Milwaukee, WI 53202-4178			EXAMINER SAWHNEY, HARGOBIND S	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/764,204

Applicant(s)

KUHL, LARRY

Examiner

Hargobind S. Sawhney

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8 and 11-16 is/are rejected.
- 7) ☒ Claim(s) 3,9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/23/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-8 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherry et al. (US Patent No.: 5,788,579) in view of Marsico (US Patent No.: 4,164,823) and Furst et al. (US Patent No.: 6,152,590).

Regarding claims 1 and 11, Cherry et al. ('579) discloses an infinity lighting arrangement (Figures 1-3) comprising:

- a hollowing housing 12 mountable on a vehicle, and the housing having interior surface shaped for a desired function (Figures 1-3, column 2, line 53); a two-way mirror 14 with fully reflective surface (Figures 1-3, column 2, line 55; and column 3, lines 5-9); the two-way mirror 14 having its peripheral surface fitting in and fixed to the interior surface of the housing 12 (Figure 1); a flexible strip 16 – fitting of a one-piece peripheral strip, with small cross-section, in a rectangular cavity of large dimensions would require structurally flexibility - the cavity disposed adjacent and in front of

- the two-way mirror 14 (Figure 3, column 2, lines 54 and 55); the two-way mirror having its one edge engaged against the two-way mirror 14 (Figure 3, column 2, lines 54 and 55); the strip 16 having its outer surface – the edge surfaces of each of the elements 40 and 42 - butting against the interior surface of housing 12 (Figure 3); the strip having an inner surface holding a plurality of serially connected, spaced apart, light –emitting sources 24 radially inwardly extending into the cavity defined by the strip 16 (Figures 1-3, column 2, line 55; and column 3, lines 24 and 25);
- a one –way mirror 18 held in spaced, and parallel to the two-way mirror 14 (Figures 1-3, column 2, lines 53-55; and column 3, lines 10-13); the one-way mirror 18 positioned immediately adjacent and forwardly of the strip 16; the one-way mirror 18 engaged to another edge of the strip 16 (Figure 3); the one-way mirror 18 having a transparent front surface and a rear reflective surface facing the reflective surface of the two-way mirror 14, and (Figure 3, column 3, lines 10-14, 63-67; and column 4, lines 1-4); the one-way mirror 18 having peripheral surface fitting in, and fixed to front portion of the interior surface of the housing (Figure 3);
 - a battery mountable on a vehicle, and powering the light emitting elements 24 positioned in the cavity defined by the strip 16 (Figure 3, column 3, lines 30-32);
 - the strip 16 being sandwiched between the one-way mirror 18 and the two-way mirror 14 (Figure 3); and

- the light, emitted from the light sources 24, reflected back and forth between the two-way mirror and the one-way mirror presenting a series of converging light streams forming an endless tunnel of light (Figure 3, column 3, lines 63-67; and column 4, lines 1-4).

Cherry et al. ('579) teaches a lighting arrangement comprising: a strip bearing a plurality of light emitting elements positioned in a housing. However, Cherry et al. ('579) does not specifically teach: the strip being reflective; and the housing including a transparent cover.

On the other hand, Marsico ('823) discloses a infinity effect lighting device (Figures 1-3) comprising: a one-way mirror 22 spaced from two-way mirror 16 (Figure 2, column 2, lines 13 and 39); a plurality of light-emitting elements 20 – LEDs - positioned between the one-way mirror 22 and the two-way mirror 16 (Figure 2, column 2, lines 20-24) and 39); a housing 10 accommodating the mirrors 16 and 22 and the light-emitting elements 20 (Figures 1-3); and the light emitting elements 20 mounted on a reflective strip 18 (Figures 1-3, column 2, lines 13-16).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the infinite effect lighting arrangement of Cherry et al. ('579) by providing the reflective strip as taught by Marsico ('823) for benefit and advantage of efficient reflection of light for enhanced brightness.

Further, Furst et al. ('590) discloses a vehicular light 1 (Figure 1) comprising: a plurality of light-emitting elements 9 mounted on a circuit board 8 –strip – (Figure 1,

column 9, line 60); and the light-emitting elements 9 covered with a transparent cover 7 (Figures 1-3, column 9, line 60; and column 10, lines 20 and 21).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the infinite effect lighting arrangement of Cherry et al. ('579) by providing the transparent cover as taught by Furst et al. ('590) for benefit and advantage of protecting the light emitting elements and mirrors from exterior moisture and other deteriorating elements.

Regarding claims 2 and 11, Cherry et al. ('579) in view of Marsico ('823) and Furst et al. ('590) discloses the infinite effect lighting arrangement further including:

- the one-way mirror and the two-way mirror each being planer (Cherry, Figures 1-3, column 2, lines 53-55; and column 3, lines 10-13); and
- multiple endless tunnels of light in spaced relationship –a plurality of lighting elements circumferentially spaced would present multiple endless tunneling effect -(Cherry, Figures 1-3, column 4, lines 36-41).

Regarding claims 4 and 5, Cherry et al. ('579) in view of Marsico ('823) and Furst et al. ('590) discloses the infinite effect lighting arrangement comprising a plurality of light emitting elements mounted on a flexible strip as applied for Claim 1 above. However, neither combined nor individual teaching of and Furst et al. ('590) specifically teaches the light emitting elements being light-emitting diodes (LEDs),.

On the other hand, Marsico ('823) discloses a infinity effect lighting device (Figures 1-3) comprising: a one-way mirror 22 spaced from two-way mirror 16 (Figure 2, column 2, lines 13 and 39); more than two rows of light-emitting elements 20 – LEDs -

positioned between the one-way mirror 22 and the two-way mirror 16 (Figure 2, column 2, lines 20-24) and 39); a housing 10 accommodating the mirrors 16 and 22 and the light-emitting elements 20 (Marsico, Figures 1-3, column 2, lines 13-16).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the infinite effect lighting arrangement of Cherry et al. ('579) by providing the LEDs as taught by Marsico ('823) for benefit and advantage of long operational life, compactness and high energy efficiency.

Regarding Claim 6, Cherry et al. ('579) in view of Marsico ('823) and Furst et al. ('590) discloses the infinite effect lighting arrangement comprising mechanical fasteners with plates for fixedly mounting the mirrors, strip with light emitting elements to the interior surface of the housing. However, neither combined nor individual teaching Cherry et al. ('579) in view of Marsico ('823) teaches the use of adhesive for fixedly mounting the mirrors, strip with light emitting elements to the interior surface of the housing.

On the other hand, Furst et al. ('590) discloses a vehicular light 1 (Figure 1) comprising: a plurality of light-emitting elements LED 6 mounted on a circuit board 8 – strip – (Figure 1, column 9, line 60); and the LED module 6 mounted into the housing 4 with an adhesive (Figures 1-3, column 10, lines 13-15).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to recognize functional equivalency of mechanical fasteners and adhesive compound, and make use of adhesives for mounting components as taught by Furst et al. ('590) and for the benefits of cost saving.

Regarding Claim 7, Cherry et al. ('579) in view of Marsico ('823) and Furst et al. ('590) discloses the infinite effect lighting arrangement comprising wiring running in the interior of the surface of the housing, and the wiring connected to a power source-battery as applied to Claim 1 detailed above (Cherry, Figure 3). However, neither combined nor individual teaching of Cherry et al. ('579), Marsico ('823) and Furst et al. ('590) teaches the wiring running axially along the interior surface of the housing.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the infinite effect lighting arrangement of Cherry et al. ('579) by relocating the wiring axially within the housing interior, since it has been held that rearranging parts of an invention involves only routine skill in the art.

Regarding claims 8 and 12-16, Cherry et al. ('579) in view of Marsico ('823) and Furst et al. ('590) discloses the infinite effect lighting arrangement meeting all limitations of Claim 1 as detailed above. However, neither combined nor individual teaching of Cherry et al. ('579), Marsico ('823) and Furst et al. ('590) teaches the infinite effect lighting arrangement being a speedometer, tail light housing, a clearance light housing, an exhaust manifold housing, motorcycle cover plate, or an air cleaner housing.

It has been held that a recitation with respect to the manner in which a claim apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitation.

Allowable Subject Matter

3. Claims 3, 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record, including Cherry et al. (US Patent No.: 5,788,579) and Marsico (US Patent No.: 4,164,823), does not show or suggest the applicant's invention as claimed. Specifically, the prior art of record does not disclose an infinite effect lighting arrangement combining:

- a housing being the exterior shell of a dashboard instrument as recited in Claim 3; and
- the one-way mirror having its partially transparent front surface provided with indicia, and a indicator needle movable along the indicia as recited in Claim 9.

The above- indicated combination makes this invention unique.

Claim 10 is necessarily objected because of its dependency on the objected base Claim 9.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

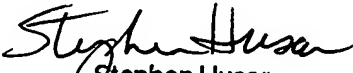
5. Schwanz et al. (U.S. Patent No. 6,637,917 B2), Burnside et al. (U.S. Patent No. 6,578,299 B2), Bachl et al. (U.S. Patent No. 6,299,337 B1), Calienes (U.S. Patent No. 4,177,634) and A. B Yeara (US Patent No.:2,286,247)

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 6:15 - 2:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HSS
9/23/05


Stephen Husar
Primary Examiner